

L-prolyl-L-m-sarcosyl-L-p-fluorophenylalanine, lower alkyl esters and/or acid addition salts thereof are produced. For this purpose, L-p-fluorophenylalanine with a protected carboxyl group is caused to react with L-m-sarcosine with a protected amino group preferably with cooling in an anhydrous medium in the presence of dicyclohexylcarbodiimide, L-m-sarcosyl-L-p-fluorophenylalanine with a protected amino group and a protected carboxyl group being obtained. Then the amino protection group is removed, with formation of L-m-sarcosyl-L-p-fluorophenylalanine with a protected carboxyl group. The obtained product is caused to react with proline with a protected amino group in the presence of dicyclohexylcarbodiimide. L-prolyl-L-m-sarcosyl-L-p-fluorophenylalanine with a protected amino group is obtained. Finally, the amino protection group is removed, and optionally the lower alkyl ester group is removed and/or the obtained compound is converted into an acid addition salt.